# IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF TEXAS **SHERMAN DIVISION**

NEAR FIELD ELECTRONICS LLC,

Plaintiff,

Civil Action No. 4:25-cv-665

v.

ENTERPRISE HOLDINGS, INC. and EAN HOLDINGS, LLC,

Defendants.

JURY TRIAL DEMANDED

#### **COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiff Near Field Electronics LLC ("Near Field" or "Plaintiff"), for its Complaint against Defendant Enterprise Holdings, Inc., ("EHI" or "Defendant") and EAN Holdings, LLC ("EAN") (individually each a "Defendant" and collectively "Defendants") alleges the following:

### **NATURE OF THE ACTION**

1. This is an action for patent infringement arising under the Patent Laws of the United States, 35 U.S.C. § 1 et seq.

### **THE PARTIES**

- 2. Plaintiff Near Field is a limited liability company organized under the laws of the State of Texas with a place of business at 3101 Boardwalk, Unit 3403 T2, Atlantic City, NJ 08401.
- 3. Upon information and belief, EHI is a corporation organized and existing under the laws of the State of Missouri, with a principal place of business at 600 Corporate Park Drive Saint Louis, Missouri 63015, and a regular and established place of business at 5760 State Hwy 121 Suite 135, Plano, TX 75024. EHI can be served through its registered agent, CT

Corporation System, 1999 Bryan Street, Ste. 900, Dallas, Texas 75201. Upon information and belief, EHI sells and offers to sell products and services throughout the United States, including in this judicial district, and introduces products and services that into the stream of commerce and that incorporate infringing technology knowing that they would be sold in this judicial district and elsewhere in the United States.

4. Upon information and belief, EAN is a limited liability company organized and existing under the laws of the State of Delaware, with a regular and established place of business at 5760 State Hwy 121 Suite 135, Plano, TX 75024, and can be served through its registered agent, CT Corporation System, 1999 Bryan Street, Ste. 900, Dallas, Texas 75201. Upon information and belief, EAN sells and offers to sell products and services throughout the United States, including in this judicial district, and introduces products and services into the stream of commerce and that incorporate infringing technology knowing that they would be sold in this judicial district and elsewhere in the United States.

### JURISDICTION AND VENUE

- 5. This is an action for patent infringement arising under the Patent Laws of the United States, Title 35 of the United States Code.
  - 6. This Court has subject matter jurisdiction under 28 U.S.C. §§ 1331 and 1338(a).
- 7. Venue is proper in this judicial district under 28 U.S.C. §1400(b). On information and belief, each Defendant has committed acts of infringement in this District and has a regular and established place of business within this District.
- 8. On information and belief, each Defendant is subject to this Court's general and specific personal jurisdiction because each Defendant has sufficient minimum contacts within the State of Texas and this District, pursuant to due process and/or the Texas Long Arm Statute because each Defendant purposefully availed itself of the privileges of conducting business in

the State of Texas and in this District, because each Defendant regularly conducts and solicits business within the State of Texas and within this District, and because Plaintiff's causes of action arise directly from each of Defendant's business contacts and other activities in the State of Texas and this District.

### U.S. PATENT NO. 6,691,201

- 9. On February 10, 2004, U.S. Patent No. 6,691,201 (the "201 patent") was duly and legally issued by the United States Patent and Trademark Office under the title "Dual Mode USB-PS/2 Device." A true and correct copy of the '201 patent is attached as Exhibit A.
- Plaintiff is the assignee and owner of the right, title, and interest in and to the '201 10. patent, including the right to assert all causes of action arising under said patents and the right to any remedies for infringement of them, including all past infringement.
- 11. The '201 patent is directed to an integrated circuit for a peripheral device capable of automatically selecting and operating in a plurality of signaling protocols using a single set of I/O pins. (Ex. A at 1:55-67; 3:47-62.)
- 12. To support multiple signaling protocols, conventional technology at the time incurred higher costs due to additional external components needed to support the additional signaling protocols, required the use of more board space to support the additional components, and dedicated valuable I/O pins on the micro-controller. (Ex. A at 1:40-45.) Additionally, conventional approaches also required additional firmware to manage the additional components as well as to support the multiple signaling protocols, which compromised the performance of one or more of the protocols necessary to support each respective mode. (*Id.* at 1:45-50.)
- 13. The single chip solution taught by the '201 patent eliminates the need for external components, simplifies firmware, and reduces board space and cost. (Ex. A at 1:50-2:8.)

#### U.S. PATENT NO. 6,742,071

- 14. On May 25, 2004, U.S. Patent No. 6,742,071 (the "'071 patent") was duly and legally issued by the United States Patent and Trademark Office under the title "Real-time I/O Processor Used to Implement Bus Interface Protocols." A true and correct copy of the '071 patent is attached as Exhibit B.
- 15. Plaintiff is the assignee and owner of the right, title, and interest in and to the '071 patent, including the right to assert all causes of action arising under said patents and the right to any remedies for infringement of them, including all past infringement.
- 16. The '071 patent is directed to a real-time input/output (I/O) processor circuit architecture used to implement bus interface protocols. (Ex. B at 1:6-10.) Specifically, the '071 patent teaches an interface that can act as a master device, generating control signals to manage communication with external devices. (*Id.* at 2:30-3:3.) This is achieved using a processor with a limited instruction set capable of generating interface-specific waveforms and responding to external events in real time. (See, e.g., Ex. B at 4:66-5:11; 5:43-54; 8:13-9:59.)
- 17. The inventions of the '071 patent provide a flexible solution for interfacing with multiple or evolving bus protocols by using a programmable general-purpose interface (GPIF) to replace rigid, protocol-specific hardware designs. (Ex. B at 1:20–67; 11:24-34.) The teachings of the '071 patent enable higher-speed operation compared to traditional microprocessor-based I/O systems by allowing control outputs and data path decisions to be changed each clock cycle (*Id.* at 6:4-16.)

# U.S. PATENT NO. 6,959,350

18. On October 25, 2005, U.S. Patent No. 6,959,350 (the "'350 patent") was duly and legally issued by the United States Patent and Trademark Office under the title "Configurable USB Interface With Virtual Register Architecture." A true and correct copy of the '350 patent is attached as Exhibit C.

- 19. Plaintiff is the assignee and owner of the right, title, and interest in and to the '350 patent, including the right to assert all causes of action arising under said patents and the right to any remedies for infringement of them, including all past infringement.
- 20. The '350 patent is directed to a configurable bus interface controller that uses a hardware description language (HDL)-based configuration package to generate configuration circuitry for different USB endpoint configurations. (Ex. C at 2:38-3:5.) The configuration package defines parameters such as endpoint number, type, direction, and packet size, which are used to generate configuration registers or hardcoded combinational logic. (*Id.*)
- 21. Conventional technology at the time utilized hard-coded endpoint configurations. (Ex. C at 1:16-17.) Because of the endpoint configurations were hard-coded, the interface controller could not be reconfigured using software or other means. (*Id.* at 1:19-22.) Thus, supporting different endpoints required writing and maintaining different HDL code for each different version of the interface controller. (*Id.* at 1:22-28.) Conventional approaches for overcoming this issue included a script that asked a designer a series of questions which then output a piece of HDL code that was incorporated into the base HDL code. However, this approach was clumsy, error-prone and produced code that was difficult to debug and maintain. (*Id.* at 1:29-33.)
- 22. The configurable bus interface controller disclosed by the '350 patent allows the interface controller to be flexibly configured without requiring separate HDL code for each endpoint. (Ex. C at 3:54-63; 5:30-50; 7:49-63.)

### **U.S. PATENT NO. 6,996,727**

23. On February 7, 2006, U.S. Patent No. 6,996,727 (the "'727 patent") was duly and legally issued by the United States Patent and Trademark Office under the title "Power Supply

for Universal Serial Bus Interface with Programmable Bus Pullup Resistor." A true and correct copy of the '727 patent is attached as Exhibit D.

- 24. Plaintiff is the assignee and owner of the right, title, and interest in and to the '727 patent, including the right to assert all causes of action arising under said patents and the right to any remedies for infringement of them, including all past infringement.
- 25. The '727 patent is directed to a power supply architecture for a bus interface that includes a programmable bus pullup resistor. (Ex. D at 1:54-67.) The invention enables a USB interface and external bus pullup resistor to be powered by an on-chip supply that operates in two modes: (1) a standard mode delivering a regulated voltage between a normal operating range, and (2) a power-down (standby) mode that significantly reduces current consumption by turning off the main power supply and instead enabling a low-power programmable resistor to maintain the necessary pullup function. (*Id.* at 1:54-67; 2:30-41; 3:1-18; 3:53-4:9.)
- 26. Conventional technology at the time provided only a constant 3.3V supply with no low-power mode. (Ex. D at 1:16-44.) In contrast, the teachings of the '727 patent disclose a mechanism to minimize power usage during idle states without compromising signaling requirements. Specifically, the invention allows the pullup resistor to remain effective during standby using a programmable element controlled by trim bits from a non-volatile memory, thereby compensating for process variations. (*Id.* at 3:1-18; 3:33-4:54.)

# **U.S. PATENT NO. 7,373,531**

27. On May 13, 2008, U.S. Patent No. 7,373,531 (the "'531 patent") was duly and legally issued by the United States Patent and Trademark Office under the title "Signal Detection Method, Frequency Detection Method, Power Consumption Control Method, Signal Detecting Device, Frequency Detecting Device, Power Control Consumption Device and Electronic Apparatus." A true and correct copy of the '531 patent is attached as Exhibit E.

- 28. Plaintiff is the assignee and owner of the right, title, and interest in and to the '531 patent, including the right to assert all causes of action arising under said patents and the right to any remedies for infringement of them, including all past infringement.
- 29. The '531 patent is directed to methods and devices for detecting signals, signal frequency, and power consumption status in an electronic device by monitoring through current in a circuit. (Ex. E at 1:19-31.) Specifically, it applies a signal to the gates of connected transistors, and detects the presence, absence, frequency, or state of the signal based on whether a through current flows. (*Id.* at 2:47-3:41.)
- 30. The teachings of the '531 patent thus enable an apparatus to detect an operation state of a monitoring target. Further, by executing a power supply stopping or reducing process, it is possible to reduce power consumption of the electronic apparatus. (Ex. E at 6:46-7:8.)

# **COUNT I – INFRINGEMENT OF THE '201 PATENT**

- 31. The allegations set forth in the foregoing paragraphs 1 through 30 are incorporated into this First Claim for Relief.
- 32. Upon information and belief, Defendants have directly infringed at least claim 14 of the '201 patent by making, using, selling, importing and/or providing and causing to be used a credit card reader device equipped with an NXP PN512 NFC Front-End (the "Accused Instrumentalities"). Accused Instrumentalities include, without limitation, any other NFCcapable credit card reader equipped with an NXP PN512 NFC Front-End or NFC front-end components with similar NFC functionality to the NXP PN512.
- 33. Exemplary infringement analysis showing infringement of claim 14 of the '201 patent is set forth in Exhibit A-1. This infringement analysis is necessarily preliminary, as it is provided in advance of any discovery provided by Defendants with respect to the '201 patent. Plaintiff reserves all rights to amend, supplement and modify this preliminary infringement

analysis. Nothing in the attached chart should be construed as any express or implied contention or admission regarding the construction of any term or phrase of the claims of the '201 patent.

- 34. The Accused Instrumentalities infringed claim 14 of the '201 patent during the pendency of the '201 patent. The '201 patent expired on January 31, 2022. Plaintiff therefore asserts liability only for the period beginning June 23, 2019 and ending at the date of expiration. Liability exists for this period because when Defendants put the Accused Instrumentalities into use, the Accused Instrumentalities performed each and every step of the method(s) claimed by '201 patent. Specifically, Defendants put the Accused Instrumentalities to use in the regular course of their business operations for processing NFC payment transactions. When used as intended by Defendants, the Accused Instrumentalities performed the steps of the claimed method. By putting the Accused Instrumentalities to use and thereby performing each step of the patented method(s), Defendants have directly infringed the '201 patent.
  - 35. Plaintiff has been harmed by Defendants' infringing activities.

### **COUNT II – INFRINGEMENT OF THE '071 PATENT**

- 36. The allegations set forth in the foregoing paragraphs 1 through 35 are incorporated into this Second Claim for Relief.
- 37. Upon information and belief, Defendants have directly infringed at least claim 15 of the '071 patent by making, using, selling, importing and/or providing and causing to be used a credit card reader device equipped with an NXP PN512 NFC Front-End (the "Accused Instrumentalities"). Accused Instrumentalities include, without limitation, any other NFCcapable credit card reader equipped with an NXP PN512 NFC Front-End or NFC front-end components with similar NFC functionality to the NXP PN512.
- 38. Exemplary infringement analysis showing infringement of claim 15 of the '071 patent is set forth in Exhibit B-1. This infringement analysis is necessarily preliminary, as it is

provided in advance of any discovery provided by Defendants with respect to the '071 patent. Plaintiff reserves all rights to amend, supplement and modify this preliminary infringement analysis. Nothing in the attached chart should be construed as any express or implied contention or admission regarding the construction of any term or phrase of the claims of the '071 patent.

- 39. The Accused Instrumentality infringed claim 15 of the '071 patent during the pendency of the '071 patent. The '071 patent expired on November 21, 2021. Plaintiff therefore asserts liability only for the period beginning June 23, 2019 and ending at the date of expiration. Liability exists for this period because when Defendants put the Accused Instrumentalities into use, the Accused Instrumentalities performed each and every step of the method(s) claimed by '071 patent. Specifically, Defendants put the Accused Instrumentalities to use in the regular course of their business operations for processing NFC payment transactions. When used as intended by Defendants, the Accused Instrumentalities performed the steps of the claimed method. By putting the Accused Instrumentalities to use and thereby performing each step of the patented method(s), Defendants have directly infringed the '071 patent.
  - 40. Plaintiff has been harmed by Defendants' infringing activities.

## **COUNT III – INFRINGEMENT OF THE '350 PATENT**

- 41. The allegations set forth in the foregoing paragraphs 1 through 40 are incorporated into this Third Claim for Relief.
- 42. Upon information and belief, Defendants have directly infringed at least claim 10 of the '350 patent by making, using, selling, importing and/or providing and causing to be used a credit card reader device equipped with an NXP PN512 NFC Front-End (the "Accused Instrumentalities"). Accused Instrumentalities include, without limitation, any other NFCcapable credit card reader equipped with an NXP PN512 NFC Front-End or NFC front-end components with similar NFC functionality to the NXP PN512.

- 43. Exemplary infringement analysis showing infringement of claim 10 of the '350 patent is set forth in Exhibit C-1. This infringement analysis is necessarily preliminary, as it is provided in advance of any discovery provided by Defendants with respect to the '350 patent. Plaintiff reserves all rights to amend, supplement and modify this preliminary infringement analysis. Nothing in the attached chart should be construed as any express or implied contention or admission regarding the construction of any term or phrase of the claims of the '350 patent.
- 44. The Accused Instrumentality infringed claim 10 of the '350 patent during the pendency of the '350 patent. The '350 patent expired on August 12, 2023. Plaintiff therefore asserts liability only for the period beginning June 23, 2019 and ending at the date of expiration. Liability exists for this period because when Defendants put the Accused Instrumentalities into use, the Accused Instrumentalities performed each and every step of the method(s) claimed by '350 patent. Specifically, Defendants put the Accused Instrumentalities to use in the regular course of their business operations for processing NFC payment transactions. When used as intended by Defendants, the Accused Instrumentalities performed the steps of the claimed method. By putting the Accused Instrumentalities to use and thereby performing each step of the patented method(s), Defendants have directly infringed the '350 patent.
  - Plaintiff has been harmed by Defendants' infringing activities. 45.

# **COUNT IV – INFRINGEMENT OF THE '727 PATENT**

- 46. The allegations set forth in the foregoing paragraphs 1 through 45 are incorporated into this Fourth Claim for Relief.
- 47. Defendant has directly infringed at least claim 18 of the '727 patent by making, using, selling, importing and/or providing and causing to be used a credit card reader device equipped with an NXP PN512 NFC Front-End (the "Accused Instrumentalities"). Accused Instrumentalities include, without limitation, any other NFC-capable credit card reader equipped

with an NXP PN512 NFC Front-End or NFC front-end components with similar NFC functionality to the NXP PN512.

- 48. Exemplary infringement analysis showing infringement of claim 18 of the '727 patent is set forth in Exhibit D-1. This infringement analysis is necessarily preliminary, as it is provided in advance of any discovery provided by Defendants with respect to the '727 patent. Plaintiff reserves all rights to amend, supplement and modify this preliminary infringement analysis. Nothing in the attached chart should be construed as any express or implied contention or admission regarding the construction of any term or phrase of the claims of the '727 patent.
- 49. The Accused Instrumentality infringed claim 18 of the '727 patent during the pendency of the '727 patent. The '727 patent expired on April 14, 2022. Plaintiff therefore asserts liability only for the period beginning June 23, 2019 and ending at the date of expiration. Liability exists for this period because when Defendants put the Accused Instrumentalities into use, the Accused Instrumentalities performed each and every step of the method(s) claimed by '727 patent. Specifically, Defendants put the Accused Instrumentalities to use in the regular course of their business operations for processing NFC payment transactions. When used as intended by Defendants, the Accused Instrumentalities performed the steps of the claimed method. By putting the Accused Instrumentalities to use and thereby performing each step of the patented method(s), Defendants have directly infringed the '727 patent.
  - 50. Plaintiff has been harmed by Defendants' infringing activities.

#### **COUNT IV – INFRINGEMENT OF THE '531 PATENT**

- 51. The allegations set forth in the foregoing paragraphs 1 through 50 are incorporated into this Fifth Claim for Relief.
- 52. Upon information and belief, each Defendant has and continues to directly infringe at least claim 2 of the '531 patent by making, using, selling, importing and/or providing

and causing to be used a credit card reader device equipped with an NXP PN512 NFC Front-End (the "Accused Instrumentalities"). Accused Instrumentalities include, without limitation, any other NFC-capable credit card reader equipped with an NXP PN512 NFC Front-End or NFC front-end components with similar NFC functionality to the NXP PN512.

Document 1

- 53. Exemplary infringement analysis showing infringement of claim 2 of the '531 patent is set forth in Exhibit E-1. This infringement analysis is necessarily preliminary, as it is provided in advance of any discovery provided by Defendants with respect to the '531 patent. Plaintiff reserves all rights to amend, supplement and modify this preliminary infringement analysis. Nothing in the attached chart should be construed as any express or implied contention or admission regarding the construction of any term or phrase of the claims of the '531 patent.
- 54. These Accused Instrumentalities are marketed, provided to, and/or used by or for each Defendant's partners, clients, customers and end users across the country and in this District.
- 55. Each Defendant was made aware of the '531 patent and its infringement thereof at least as early as the filing of this Complaint.
- 56. Upon information and belief, since at least the time each Defendant received notice, each Defendant has induced and continues to induce others to infringe at least one claim of the '531 patent under 35 U.S.C. § 271(b) by, among other things, and with specific intent or willful blindness, actively aiding and abetting others to infringe, including but not limited to each Defendant's partners, clients, customers, and end users, whose use of the Accused Instrumentalities constitutes direct infringement of at least one claim of the '531 patent.
- 57. In particular, each Defendant's actions that aid and abet others to infringe, such as its partners, customers, clients, and end users, include advertising and distributing the Accused

Instrumentalities and providing instruction materials, training, and services regarding the Accused Instrumentalities. On information and belief, each Defendant has engaged in such actions with specific intent to cause infringement or with willful blindness to the resulting infringement because each Defendant has had actual knowledge of the '531 patent and knowledge that its acts were inducing infringement of the '531 patent since at least the date each Defendant received notice that such activities infringed the '531 patent.

- 58. Since the filing of this Complaint, each Defendant's infringement has been willful.
- 59. The Accused Instrumentalities infringed and continue to infringe claim 2 of the '531 patent during the pendency of the '531 patent.
  - 60. Plaintiff has been harmed by Defendants' infringing activities.

## JURY DEMAND

Pursuant to Rule 38 of the Federal Rules of Civil Procedure, Plaintiff demands a trial by jury on all issues triable as such.

### PRAYER FOR RELIEF

WHEREFORE, Plaintiff demands judgment for itself and against Defendants as follows:

- An adjudication that each Defendant has infringed the '201, '071, '350, '727 and A. '531 patents;
- An award of damages to be paid by each Defendant adequate to compensate B. Plaintiff for each Defendant's past infringement of the '201, '071, '350, and '727 patents, including interest, costs, expenses and an accounting of all infringing acts including, but not limited to, those acts not presented at trial;
- C. An award of damages to be paid by each Defendant adequate to compensate Plaintiff for each Defendant's past infringement of the '531 patent, and any continuing or future

infringement through the date such judgment is entered, including interest, costs, expenses and an accounting of all infringing acts including, but not limited to, those acts not presented at trial;

- D. A declaration that this case is exceptional under 35 U.S.C. § 285, and an award of Plaintiff's reasonable attorneys' fees; and
- E. An award to Plaintiff of such further relief at law or in equity as the Court deems just and proper.

SHEA | BEATY PLLC

Dated: June 23, 2025

/s/ Trevor J. Beaty

Trevor J. Beaty trevor@sheabeaty.com One Grande Centre 1800 Teague Drive, Suite 500 Sherman, TX 75090

Tel: (903) 870-7771

Attorneys for Plaintiff Near Field Electronics LLC